PART 72—CONSTRUCTION AND ARRANGEMENT

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SOURCE: CGFR 65–50, 30 FR 16903, Dec. 30, 1965, unless otherwise noted.

Subpart 72.01—Hull Structure

§ 72.01–1 Application.

The provisions of this subpart, with the exception of §72.01–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted

for prior to November 19, 1952, shall meet the requirements of § 72.01–90.

[CGD 95–028, 62 FR 51204, Sept. 30, 1997]

§ 72.01–5 Vessels subject to load line.

(a) For vessels assigned a load line, see subchapter E (Load Lines) of this chapter, for special requirements as to strength, closure of openings, etc.

(b) [Reserved]

§ 72.01–10 Vessels using fuel having a flashpoint of 110 degrees F. or lower.

(a) Where liquid fuel having a flashpoint of 110 degrees F. or lower is carried for main or auxiliary machinery or for starting purposes, such machinery and fuel tanks shall be in separate vapor tight compartments separating each from the other and from the remainder of the vessel.

(b) [Reserved]

§ 72.01–15 Structural standards.

(a) In general, compliance with the standards established by the American Bureau of Shipping, see subpart 70.35 of this subchapter, will be considered satisfactory evidence of the structural efficiency of the vessel. However, in special cases, a detailed analysis of the entire structure or some integral part may be made by the Coast Guard to determine the structural requirements.

(b) [Reserved]

§ 72.01–20 Special consideration.

(a) Special consideration will be given to the structural requirements for vessels, such as small vessels or vessels of unusual design not contemplated by the standards established by the American Bureau of Shipping, see subpart 70.35 of this subchapter.

(b) [Reserved]

§ 72.01–25 Additional structural requirements.

(a) Vessels required by part 171 of this chapter to have subdivision bulkheads, double bottoms, etc. must comply with the following structural requirements:

(1) Each watertight subdivision bulkhead, whether transverse or longitudinal, shall be constructed in such a manner that it shall be capable of supporting, with a proper margin of resistance, the pressure due to the maximum head of water which it might have to sustain in the event of damage to the vessel, but at least the pressure due to a head of water up to the margin line. The construction of the bulkheads shall be to the satisfaction of the Commandant.

(2) Steps and recesses in subdivision bulkheads shall be watertight and as strong as the bulkhead at the place where each occurs. Decks, trunks, tunnels, duct keels, ventilators, etc., that are made watertight to maintain the subdivision requirements for a vessel shall be of the same strength as the bulkhead at the corresponding levels. The means used for making them watertight and the arrangements adopted for closing openings in them shall be to the satisfaction of the Commandant. Watertight ventilators and trunks shall be carried at least up to the bulkhead deck.

(3) Where frames or beams pass through a watertight bulkhead or deck, such bulkhead or deck shall be made structurally watertight without the use of wood, cement, or similar materials.

(4) Subdivision bulkheads, including steps, recesses, trunks, tunnels, ventilators, etc., which might form part of such bulkheads, shall be thoroughly examined and hose tested upon completion of construction. The water pressure for such tests shall be at least 30 p.s.i. Testing of main compartments by filling them with water is not compulsory.

(5) The forepeak, double bottoms (including duct keels), and inner skins shall be tested with water to-a-head corresponding to the requirements of paragraph (a)(1) of this section upon completion of construction.

(6) The watertight space enclosing the stern tube shall be tested by filling with water to-a-head up to the deepest subdivision load line.

(7) Tanks which are intended to hold liquids, and which form part of the subdivision of the vessel, shall be tested for tightness upon completion of construction with water to-a-head up to the deepest subdivision load line or to-a-head corresponding to ⅔ of the depth from the top of the keel to the margin line in way of the tanks, whichever is

greater; but in no case shall the testhead be less than 3 feet above the top of the tank.

(8) The tests referred to in the preceding paragraphs (a) (5), (6), and (7) of this section are for the purpose of insuring that the subdivision structural arrangements are watertight and are not regarded as a test of the fitness of any compartment for the storage of oil, fuel or for other specific purposes for which a test of a superior character may be required depending upon the height to which the liquid has access in the tank or its connections.

(b) [Reserved]

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983]

§ 72.01–90 Vessels contracted for prior to November 19, 1952.

(a) Existing structure previously approved will be considered satisfactory so long as it is maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standard as the original construction.

(b) [Reserved]

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15281, Dec. 6, 1966]

Subpart 72.03—General Fire Protection

§ 72.03–1 Application.

(a) The provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 72.03–5 Fire hazards to be minimized.

(a) The general construction of the vessel shall be such as to minimize fire hazards insofar as is reasonable and practicable.

(b) [Reserved]

§ 72.03–10 Woodwork insulated from heated surfaces.

(a) Internal combustion engine exhausts, boiler and galley uptakes and similar sources of ignition shall be kept clear of and suitably insulated from any woodwork or other combustible matter.

(b) [Reserved]

§ 72.03–15 Lamp room construction.

(a) Lamp, paint, and oil lockers and similar compartments shall be constructed of steel or shall be wholly lined with metal.

(b) [Reserved]

Subpart 72.04—Navigation Bridge Visibility

§ 72.04–1 Navigation bridge visibility.

Each passenger vessel which is 100 meters (328 feet) or more in length and contracted for on or after September 7, 1990, must meet the following requirements:

(a) The field of vision from the navigation bridge, whether the vessel is in a laden or unladen condition, must be such that:

(1) From the conning position, the view of the sea surface is not obscured forward of the bow by more than the lesser of two ship lengths or 500 meters (1640 feet) from dead ahead to 10 degrees on either side of the vessel. Within this arc of visibility any blind sector caused by cargo, cargo gear, or other permanent obstruction must not exceed 5 degrees.

(2) From the conning position, the horizontal field of vision extends over an arc from at least 22.5 degrees abaft the beam on one side of the vessel, through dead ahead, to at least 22.5 degrees abaft the beam on the other side of the vessel. Blind sectors forward of the beam caused by cargo, cargo gear, or other permanent obstruction must not exceed 10 degrees each, nor total more than 20 degrees, including any blind sector within the arc of visibility described in paragraph (a)(1) of this section.

(3) From each bridge wing, the field of vision extends over an arc from at least 45 degrees on the opposite bow, through dead ahead, to at least dead astern.

(4) From the main steering position, the field of vision extends over an arc from dead ahead to at least 60 degrees on either side of the vessel.

(5) From each bridge wing, the respective side of the vessel is visible forward and aft.

(b) Windows fitted on the navigation bridge must be arranged so that:

(1) Framing between windows is kept to a minimum and is not installed immediately in front of any work station.

(2) Front windows are inclined from the vertical plane, top out, at an angle of not less than 10 degrees and not more than 25 degrees.

(3) The height of the lower edge of the front windows is limited to prevent any obstruction of the forward view previously described in this section.

(4) The height of the upper edge of the front windows allows a forward view of the horizon at the conning position, for a person with a height of eye of 1.8 meters (71 inches), when the vessel is at a forward pitch angle of 20 degrees.

(c) Polarized or tinted windows must not be fitted.

[CGD 85–099, 55 FR 32247, Aug. 8, 1990]

Subpart 72.05—Structural Fire Protection

§ 72.05–1 Application.

(a) The provisions of this subpart shall apply to the following vessels:

(1) All vessels of 100 gross tons and over.

(2) All vessels which carry more than 150 passengers.

(3) All vessels on an international voyage.

(b) The provisions of this subpart, with the exception of § 72.05–90, shall apply to all vessels noted in paragraph (a) of this section contracted for on or after May 26, 1965. Such vessels contracted for prior to May 26, 1965, shall meet the requirements of § 72.05–90.

§ 72.05–5 Definitions.

NOTE: The parenthetical number after each space refers to the applicable column and row number in tables 72.05–10 (d) through (g).

(a) *Safety areas* will be considered as including the following spaces:

(1) Control stations, i.e., spaces containing the emergency source of power, and those spaces in which a continuous watch is maintained and in which navigating, radio, or fire-control equipment is located. (1)

(2) Passenger and crew stairway and elevator enclosures. (2)

(3) Passenger and crew communicating corridors. (3)

(4) Open decks and enclosed promenades in way of lifeboat embarkation or lowering positions. (4) (See also paragraph (l) of this section.)

(b) *Accommodation spaces* will be considered as including the following spaces:

(1) Public spaces, such as halls, dining rooms, messrooms, lounges, cafes, and other similar spaces normally accessible during the voyage. (5) through (7) (Depending upon size and furnishings.)

(2) Public sales rooms and similar spaces. (6) or (7) (Depending on size.)

(3) Staterooms, including passenger and crew rooms, barber shops, beauty parlors, offices, dispensaries, etc. (5) or (6) (Depending on furnishings.)

(4) Washrooms and toilet spaces, both public and private. (8)

(5) Isolated lockers and small storerooms in accommodation areas. (6)

(6) Isolated serving pantries, etc., in accommodation areas, with incombustible furnishings. (8)

(7) Operating rooms. (8)

(8) Small laundries containing only tubs and washing machines, with no facilities for drying other than small electric driers. (8)

(9) Small cleaning gear lockers containing only slop sinks, and having no room for stowing materials other than a broom, mop, cleaning powder, soap, etc. (8)

(10) Large cleaning gear lockers having considerable stowage space. (6) or (9)

(c) *Service spaces* will be considered as including the following spaces:

(1) Motion picture projection rooms and film stowage rooms. (6) or (9)

(2) Galleys, main pantries, and storerooms, including alleyways and stairs, part of and for the exclusive use of such spaces. (9)

(3) Diet kitchens. (6) or (9) (Depending on furnishing.)

(4) Work shops (not part of machinery spaces, galleys, etc.), large laundries, drying rooms, mail and baggage rooms, etc. (9)

(5) Garbage disposal and stowage rooms, and trash stowage rooms. (9)

(6) Paint and lamp rooms, and similar spaces containing highly combustible materials. (9)

(d) *Machinery spaces*—will be considered as including the following spaces:

(1) Main machinery spaces, including trunks and casings, alleyways, gratings, and stairways, part of and for the exclusive use of these spaces, auxiliary machinery spaces containing internal combustion machinery or other oil burning, heating, or pumping units, and fuel oil filling stations. (10)

(2) Auxiliary machinery spaces containing only pumps, tanks, electrical machinery, ventilation or air conditioning equipment, resistors, steering machinery, stabilizer machinery, etc. (12) (Where such spaces contain considerable stowage space for combustibles.) (10)

(e) *Cargo spaces* will be considered as including the following spaces:

(1) Cargo holds, lockers, and trunks, both accessible and inaccessible and including refrigerated cargo spaces and cargo oil tanks intended for the alternate carriage of dry cargo. (11)

(2) Cargo oil tanks if not intended for the alternate carriage of dry cargo. (12)

(f) *Miscellaneous spaces* will be considered as including the following spaces:

(1) Fuel and water tanks and voids. (12)

(2) Open decks and enclosed promenades except in way of lifeboat embarkation and lowering positions. (13) (See also paragraph (l) of this section.)

(3) Shaft alleys when separated from machinery spaces, and containing no space assigned for the stowage of combustibles. (12)

(g) A *standard fire test* is one which develops in the test furnace a series of time-temperature relationships as follows:

5 minutes	1,000 °F.
10 minutes	1,300 °F.
30 minutes	1,550 °F.
60 minutes	1,700 °F.

(h) *Main vertical zones* are those sections, the mean length of which does not, in general, exceed 131 feet on any one deck, into which the hull, superstructure, and deckhouses are required to be divided by fire-resisting bulkheads.

(i) Where the term *steel or other equivalent metal* is used in this part, it is intended to require a material which, by itself or due to insulation provided, has structural and integrity qualities equivalent to steel at the end of the applicable fire exposure.

(j) Working spaces will be considered as only those service and machinery spaces where personnel are normally employed as contrasted to those where personnel may occasionally visit or be employed for short periods of time.

(k) Passenger or crew corridors over 8 feet in width will be considered as public spaces for the purpose of this subpart.

(l) Spaces which might be considered as open decks due to the presence of permanent openings to the weather in one or more sides, or where any or all sides may be completely open to the weather, will be considered as interior or enclosed spaces for the purpose of this subpart if any spot on the overhead is more than 15 feet from the nearest opening to the weather. This requirement shall only apply to those portions of the space as are under a deck or canopy, but it shall not be considered as a restriction against permanent opening or a restriction against the materials used for a canopy. This paragraph shall not apply to open or enclosed promenades having a nominal width of 15 feet or less.

(m) Where balconies are installed opening into a space, the following general requirements shall be met:

(1) For the purpose of meeting main vertical zone bulkhead spacing, the length of the space to which the balcony is open will be considered as being increased by an amount equal to the gross area of the balcony divided by the average width of the space.

(2) Where balconies are formed by penetrating one or more decks, the bulkheads in the upper portion of the space are, in effect, part of a stepped or recessed deck and should be treated as such for fire control purposes. In this regard, particular attention should be given to the protection of openings with proper doors of the type indicated in § 72.05–25(b)(9).

(3) Two means of escape shall be provided for each balcony, at least one of which shall be independent of the space to which the balcony is open.

§ 72.05–10 Type, location, and construction of fire control bulkheads and decks.

(a) The hull, structural bulkheads, decks, and deckhouses shall be constructed of steel or other equivalent metal construction of appropriate scantlings.

(b) The hull, superstructure, and deck houses shall be subdivided by suitable structural steel or other equivalent metal bulkheads into main vertical zones, the mean length of which shall not, in general, exceed 131 feet on any one deck. Where practicable, the main vertical zone bulkheads shall be kept in a single vertical plane. However, on vessels designed for special purposes, such as automobile or railroad car ferries, where the installation of such bulkheads would defeat the purpose for which the vessel is intended, equivalent means for controlling and limiting a fire may be substituted if specifically approved by the Commandant.

(c) All bulkheads and decks shall be classed as A–60, A–30, A–15, A–0, B–15, B–0, or C, depending upon the type of space on each side of the bulkhead or above and below the deck.

(1) Bulkheads or decks of the ''A'' Class shall be composed of steel or equivalent metal construction, suitably stiffened and made intact with the main structure of the vessel, such as shell, structural bulkheads, and decks. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of smoke and flame for 1 hour. In addition, they shall be so insulated with approved structural insulation, bulkhead panels, or deck covering that the average temperatures on the unexposed side would not rise more than 250 °F. above the original temperature, nor would the temperature at any one point, including any joint, rise more than 325 °F. above the original temperature, within the time listed below:

Class A–60	60 minutes.
Class A–30	30 minutes.
Class A–15	15 minutes.
Class A–0	0 minutes (i.e., no insulation requirements).

(2) Bulkheads of the ''B'' Class shall be constructed with approved incombustible materials and made intact from deck to deck (or to ceiling as provided in paragraph (h) of this section) and to shell or other boundaries. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of flame for ½ hour. In addition, their insulation value shall be such that the average temperature of the unexposed side would not rise more than 250 °F. above the original temperature, nor would the temperature at any one point, including any joint, rise more than 405 °F. above the original temperature within the time listed below:

Class B–15	15 minutes.
Class B–0	0 minutes (i.e., no insulation requirements).

(3) Class C bulkheads or decks shall be constructed of approved incombustible materials, but need meet no requirements relative to the passage of flame nor the limiting of temperature rise.

(d) The minimum requirements for the bulkheads between the various spaces, where such bulkheads form the boundaries of main vertical zones, shall be as noted in table 72.05–10(d).

(e) The minimum requirements for the bulkheads between the various spaces, where such bulkheads do not form the boundaries of main vertical zones, shall be as noted in table 72.05–10(e).

(f) The minimum requirements for the decks between the various spaces, where such decks form the boundaries of stepped main vertical zones, shall be as noted in table 72.05–10(f).

(g) The minimum requirements for the decks between the various spaces, where such decks do not form the boundaries of stepped main vertical zones, shall be as noted in table 72.05–10(g).

TABLE 72.05–10(d)—BULKHEADS—MAIN VERTICAL ZONE

ADJACENT TO		THIS SPACE: Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	A-60	A-15	A-15	A-0	A-30	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Stairway and elevator enclosures	2	.....	A-0	A-0	A-0	A-0	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Corridors	3	.....	.....	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	.....	.....	.....	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	5	.....	.....	.....	.....	A-15	A-15	A-15	A-0	A-30	A-30	A-30	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings, and isolated storerooms	6	.....	.....	.....	.....	.....	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	.....	.....	.....	.....	.....	.....	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Washrooms, toilet spaces, and isolated pantries with incombustible fittings	8	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0	A-0	A-0
Machinery spaces	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0	A-0
Dry cargo spaces	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0
Fuel and water tanks and voids	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C

TABLE 72.05–10(e)—BULKHEADS—NOT MAIN VERTICAL ZONES

ADJACENT TO		THIS SPACE: Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	B-0	A-0	A-0	A-0	A-15	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Stairway and elevator enclosures	2	.....	C	A-0	A-0	A-0	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Corridors	3	.....	.....	C	A-0	B-0	B-0	A-0	B-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	.....	.....	.....	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire-resistant furnishings	5	.....	.....	.....	.....	B-0	B-15	A-15	B-0	A-15	A-15	A-15	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings, and isolated storerooms	6	.....	.....	.....	.....	.....	B-15	A-30	B-0	A-60	A-60	A-60	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	.....	.....	.....	.....	.....	.....	A-60	B-0	A-60	A-60	A-60	A-0	A-0
Washrooms, toilet spaces and isolated pantries with incombustible fittings	8	.....	.....	.....	.....	.....	.....	.....	C	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	.....	.....	.....	.....	.....	.....	.....	.....	C[1]	A-0	A-0	A-0	A-0
Machinery spaces	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	C	A-0	A-0	A-0
Dry cargo spaces	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0
Fuel and water tanks and voids	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C

[1] Class C bulkheads may be used between two similar spaces, such as between two similar storerooms. However, a Class A-0 bulkhead shall be used between dissimilar spaces, such as a storeroom and a dissimilar workshop.

TABLE 72.05–10(f)—DECKS—MAIN VERTICAL ZONES

ADJACENT TO		THIS SPACE:												
		Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	A-60	A-60	A-30	A-0	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Stairway and elevator enclosures	2	A-15	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Corridors	3	A-30	A-0	A-0	A-0	A-0	A-0	A-15	A-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	5	A-30	A-30	A-15	A-0	A-15	A-15	A-30	A-0	A-0	A-0	A-0	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings, and isolated storerooms	6	A-60	A-60	A-30	A-15	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Washrooms, toilet spaces, and isolated pantries with incombustible fittings	8	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Machinery spaces	10	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Dry cargo spaces	11	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Fuel and water tanks and voids	12	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C

TABLE 72.05–10(g)—DECKS—NOT MAIN VERTICAL ZONES

ADJACENT TO		THIS SPACE:														
THIS SPACE:		Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
Control stations	1	A-30	A-30	A-15	A-0	A-0	A-15	A-30	A-0	A-0	A-0	A-0	A-0	A-0
Stairway and elevator enclosures	2	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Corridors	3	A-15	A-0	A-0	A-0	A-0	A-0	A-15	A-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	5	A-15	A-15	A-0	A-0	A-0	A-0	A-15	A-0	A-0	A-0	A-0	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	6	A-60	A-60	A-30	A-15	A-0	A-30	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Washrooms, toilet spaces, and isolated pantries with incombustible fittings	8	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Machinery spaces	10	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	C	A-0	A-0	A-0
Dry cargo spaces	11	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Fuel and water tanks and voids	12	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C

(h) Where ceilings or linings are fitted, ''B'' Class bulkheads, with the exception of those forming passageways, may stop at the ceiling or lining and need not continue to the deck or shell, provided the ceiling and/or lining is erected as indicated in paragraph (j) of this section. However, draft stops meeting at least Class B–0 requirements shall be fitted not more than 45 feet apart between the ceiling or lining and the deck or shell. The space behind the linings of stairways and similar trunks shall have similar draft stops at each deck.

(i) Where Class B–15 bulkhead panels are required to go beyond the ceiling to the deck above, or beyond the lining to the shell, the portion of the bulkhead panel within the void space need only meet B–0 requirements.

(j) Where ''B'' Class panels are used, all four edges of the panel shall be retained by continuous steel or equivalent metal flanges on both sides of the panel offering at least ¾ inch coverage. The top and bottom flanges shall be so attached to the structural decks above and below so as to support and restrain the panels in the event of fire. Other methods of construction may be specifically approved by the Commandant if determined to be equivalent.

(k) Any sheathing, furring, or holding pieces incidental to the securing of structural insulation shall be of approved incombustible materials.

(l) Where linings or bulkhead panels are framed away from the shell or structural bulkheads, the deck within the void space so formed need only meet Class A-0 requirements.

(m) Decks within accommodation spaces and inside safety areas may have an overlay for leveling or finishing purposes which need not meet the requirements for an approved deck covering. Such an overlay will not be considered as giving any insulating value and may not in general exceed ⅜ of an inch in thickness. Greater thicknesses may be specifically approved by the Commandant for specific locations.

(n) Rugs and carpets may be used in addition to any deck covering or overlay installed. Rugs and carpets used in stairways or corridors shall be of wool, or other materials having equivalent fire-resistive qualities.

(o) Decking within surgical operating rooms shall be of a type which is acceptably conductive to prevent accumulation of dangerous electrostatic charges, and shall be in general agreement with ''Code for Flammable Anesthetics'' of issue in effect at the time the construction or alteration of the vessel is contracted for, published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269.

(p) Decks in washrooms and toilet spaces, service, cargo, and machinery spaces, open decks, exterior safety areas, and enclosed promenades may have an overlay in any thickness. This overlay need not meet the requirements for an approved deck covering.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGD 95–072, 60 FR 50463, Sept. 29, 1995; CGD 95–028, 62 FR 51204, Sept. 30, 1997]

§ 72.05–15 Ceilings, linings, trim, and decorations in accommodation spaces and safety areas.

(a) Ceilings and linings and any furring incidental to their erection shall be of approved incombustible materials. Where such ceilings or linings are given credit for their insulating value in obtaining a bulkhead or deck classification they shall be of Class B–15 bulkhead panel material, and the construction shall be as required by § 72.05–10(j).

(b) Bulkheads, linings, and ceilings may have a combustible veneer within a room not to exceed 2/28 of an inch in thickness. However, combustible veneers shall not be used in passageways or stairway enclosures, or in spaces specifically restricted by tables 72.05–10 (d) through (g).

(c) The total volume of combustible face trim, moldings, and decorations, including veneers, in any compartment shall not exceed a volume equivalent to 1/10 inch veneer on the combined area of the walls of the compartment. Such trim, molding, or decorations shall not perform any structural function, and shall not be used in corridors or stairway enclosures.

(d) Combustible veneers, trim, decorations, etc., shall not be used in or extend into hidden spaces such as behind

linings or ceilings or in the matter of double bulkheads.

(e) Nothing in this subpart shall be construed as prohibiting the covering of any surface with a reasonable number of coats of paint or with a Marine Finish meeting the requirements of subpart 164.012 of subchapter Q (Specifications) of this chapter. This includes corridors, stairway enclosures, and hidden spaces.

(f) Partial bulkheads or decks used to subdivide a space for artistic treatment, privacy, etc., shall meet the requirements of Class C bulkheads.

§ 72.05–20 Stairways, ladders, and elevators.

(a)(1) Except as further noted the provisions of this section apply to all vessels.

(2) For small vessels, special consideration for relief may be given where it is shown to be unreasonable or impracticable to meet the detailed requirements for stairway size, slope, dimensioning, and landing area.

(3) Stairways, ladders, and elevators within main machinery spaces or cargo holds are not covered by the general provisions of this section, but shall meet the requirements of paragraph (b) of this section.

(b) Stairways, ladders, and elevators within main machinery spaces and cargo holds shall meet the following requirements:

(1) All stairways, ladders, and elevators shall be of steel.

(2) [Reserved]

(c) Deck penetrations shall meet the following requirements:

(1) Where a continuous vertical deck penetration for a stairway or elevator exceeds one deck, the integrity of all decks involved shall be assured by enclosure bulkheads and decks meeting the applicable requirements of § 72.05–10 (d) through (g), and by doors at all levels meeting the requirements of § 72.05–25(b)(9).

(2) Where only two decks are served by a stairway or elevator, the integrity of the deck involved may be assured as noted in the preceding paragraph. Alternately, the integrity may be maintained at one level only by means of bulkheads and by doors meeting the requirements of § 72.05–25(b)(9). If the latter method is used, it should be noted that the integrity of a deck is involved, and accordingly, the bulkhead classifications should be selected from tables 72.05–10(f) or 72.05–10(g), the spaces above or below being assumed to extend to the bulkheads and doors.

(3) Stairways or elevators to a balcony within a space need not be enclosed, provided the stairway or elevator serves only the space and the balcony within the space.

(d) For the purpose of this section, stairways are identified as follows:

Type 1—Main Vertical Zone enclosed stair towers.
Type 2—Enclosed stairways other than Type 1.
Type 3—Interior stairway not enclosed.
Type 4—Exterior stairways or exterior inclined ladders.

(e) Each Main Vertical Zone shall be served by at least one Type 1 stairway, so that independent of adjoining Main Vertical Zones, escape may be effected from any accommodation space or any other space where persons may be normally quartered or employed, to ALL other decks having any such spaces within the same Main Vertical Zone without coming out of the stair tower enclosure. Each Type 1 stairway shall give access to the Embarkation Deck or, if the Embarkation Deck does not extend to the portion of the vessel in question, to at least one weather deck from which convenient communication to the Embarkation Deck is provided by means of Type 4 stairways. In cases where a Type 1 stairway is accessible from two Main Vertical Zones, it may be considered as the required Type 1 stairway for both zones provided all boundaries of the stairway meet Main Vertical Zone requirements.

(f) Insofar as is reasonable and practicable, Types 1 and 2 stairways, and all elevator enclosures, should not give direct access to accommodations or other enclosed spaces in which a fire may originate.

(g) The furnishings for Types 1 and 2 stairways, and all elevator enclosures, shall be as set forth in § 72.05–55(c).

(h) In general, curved, spiral, or winding stairways will not be permitted. Relaxation from this requirement may be permitted, provided, in the opinion of the Commandant, the

proposed stairway is equivalent with respect to safety and dimensions to the stairways covered by this section.

(i) For all types of stairways, the stairs, platforms, and landings shall be of sufficient strength to sustain a load of 100 pounds per square foot with a factor of safety of 4 based on the ultimate strength.

(j) The stringers, treads, and all platforms and landings of all Types 1, 2, and 3 stairways shall be of solid steel construction. Risers shall be of approved incombustible material.

(k) For all types of stairways, handrails shall be fitted on both sides of the stairs. For stairways in excess of 66 inches in width, additional center handrails shall be provided. All handrails shall be fitted at a vertical height above the tread at its nosing of between 33 and 36 inches.

(l) For all types of stairways, the stair width shall be clear of all obstructions other than the handrails.

(m) Handrails and trim for all Types 1, 2, and 3 stairways shall be of approved ''incombustible materials.''

(n) For all types of stairways, there shall be no variation in the width of the stairs, the depth of the tread, or the height of the risers in any flight. Where variation in height of riser or depth of tread in different flights is necessary, such variations shall be minimized.

(o) For all types of stairways, the sum of the riser height and tread depth shall be at least 17 inches and not more than 18 inches. Types 1, 2, and 3 stairways having treads less than 10 inches in depth shall have a nosing of one inch or other means to provide additional room on the tread.

(p) All stairways shall be dimensioned in accordance with table 72.05–20(p), depending upon the type of stairway and the number of persons served.

TABLE 72.05–20(p)

Type of stairway	Primary use	Maximum angle of inclination (degrees)	Minimum stair tread width, in inches, based upon number of persons served by the stairway—Number of persons						
			1–10	11–20	21–30	31–40	41–50	51–60	Over 60
1	Passenger or crew	40	28	30	32	34	36	40	44
2 or 3	Passenger	40	28	30	32	34	36	36	36
2 or 3	Crew	50	28	30	30	30	30	30	30
4	Passenger or embarkation route.	45	28	30	30	30	30	30	30
4	Crew	55	24	24	24	24	24	24	24

(1) The maximum angle of inclination from the horizontal for any stairway shall be as given in table 72.05–20(p).

(2) For all types of stairways, the minimum width shall be determined on a deck-by-deck basis. Except as further noted, on any particular deck, only those persons on that deck using the stairway are involved in the width determination. However, once a minimum required width has been established at any one level, that width may not be reduced at any subsequent deck level in the direction of normal escape. This does not prohibit the use of stair widths exceeding the required minimum for any particular flight or flights.

(3) The various spaces shall be considered to have the number of persons in them as follows:

(i) Passenger staterooms—designed capacity.

(ii) Crew staterooms—two-thirds designed capacity.

(iii) Theaters, dining halls, and similar spaces having fixed seating—maximum seating capacity.

(iv) Lounges, club rooms, etc.—1 person for every 20 square feet of deck area.

(v) Working spaces—normal operating capacity.

(4) Type 1 stairways shall be dimensioned on a deck-by-deck basis as described in the previous subparagraphs. In determining the number of persons using a Type 1 stairway, all persons within the Main Vertical Zone or Zones

in question are assumed to be using Type 1 stairways. No consideration is given to any Type 2 or 3 stairways that may be available. If more than one Type 1 stairway serves a particular Main Vertical Zone, the persons shall be distributed between the stairways dependent upon the arrangements, and the stairways shall be dimensioned accordingly. If in the normal operation of the vessel, a Type 1 stairway is intended for a greater number of persons than given by the foregoing, the larger number shall be used.

(5) Types 2, 3, and 4 stairways shall be dimensioned on a deck-by-deck basis as described in this paragraph. In determining the number of persons using the stairways, the normal operation of the vessel shall be the determining factor. In this respect, if any particular stairway forms part of a normal debarkation route, the number of persons using the stairway for that purpose shall be considered.

(q) All types of stairways designed with a broken flight between any two decks shall conform to the additional requirements of this paragraph.

(1) Any interruption of the slope or change of direction of the stairway shall be accomplished by means of an intermediate landing of rectangular or nearly rectangular shape based on the actual dimensions of the stairs landing thereon.

(2) Each set of stairs of a broken flight shall be dimensioned independently, and shall conform to the minimum stair widths given in table 72.05–20(p).

(r) Landings for stairways shall be provided in accordance with the applicable requirements of this paragraph.

(1) For all types of stairways, at the top and bottom of each flight of stairs, there shall be a clear landing having an area at least equal to the square of the actual stair tread width.

(2) For Type 1 stairways, there shall be provided within the enclosure at each deck level a landing having a minimum clear area in square feet, exclusive of the stairs, equal to 1.2 times the number of persons from that deck using the stairway.

(3) Where an aisle around a stairway is required due to the relationship of the flights, such aisle shall have a clear width at all points at least equal to the actual stair tread width.

(s) The total clear width of doors to stairways shall be as set forth in table 72.05–20(s), and shall meet all of the other applicable requirements of this paragraph.

TABLE 72.05–20(s)

Type of stairway	Primary use	Minimum clear opening, in inches, of doors to stairways based on number of persons served by doors—Number of persons (*N*)					
		1–10	11–20	21–30	31–40	41–50	Over 50
1	Passenger or crew	28	30	32	34	36	[1] 0.75*N*
2 or 3	Passenger	28	30	32	34	36	36
2 or 3	Crew	28	30	30	30	30	30

[1] Obtain clear opening in inches by multiplying the number of persons served (*N*) by 0.75.

(1) The dimensioning of doors shall be based on the same fundamentals as described in paragraphs (p)(2) through (5) of this section for stairways. However, the number of people involved for a particular door shall be determined from the arrangements, each door being calculated independent of any other doors to the stairway at the same level.

(2) In no case shall a clear door width be less than 28 inches.

(3) On the Embarkation Deck, each Type 1 stairway shall provide at least 44 inches of exit door width to each side of the vessel. Exit may be provided directly to the weather or indirectly by passageways and/or corridors which lead to the weather.

§ 72.05–25 Doors, other than watertight.

(a) The general requirement for doors, other than watertight doors, are as follows:

(1) All doors shall be capable of operation from either side by 1 person.

(2) In public spaces, stairway enclosures, corridors, etc., all doors shall open in the direction of escape where practicable.

(3) If it is desired to use decorative doors in addition to those required, they shall be constructed of approved incombustible materials and shall not interfere with the normal operation of the required doors, and shall open in the same direction if the required doors are in a main avenue of escape.

(4) For the purpose of this subpart, all glass permitted in doors shall be at least ¼-inch thick. However, greater thickness may be required for strength purposes in certain locations. Except for hardwood doors permitted by paragraph (b)(8) of this section, all glass shall be fitted in steel or equivalent metal frames and shall be retained by steel or equivalent metal glazing beads or angles.

(5) Where wire-inserted glass is required, and the single wire type is employed, the strands shall run horizontally and shall be not more than 2 inches apart.

(6) Where hose ports are fitted, they shall be cut in the lower corner of the door on the side opposite the hinge so that if the hose is passed through the doorway when the door is open, it may be closed over the hose. The cut for the hose port should be approximately 6 inches square. A hinged or pivoted steel or equivalent metal cover shall be fitted in the cut, equipped with a bullet catch or similar method of fastening which will permit easy and automatic operation of the hinged cover.

(7) Combustible veneers may be used in doors where permitted for, and subject to the same conditions as, the bulkheads in which the doors are hung.

(8) The locking of doors may be permitted, except as noted in § 72.10–20.

(b) Doors in ''A'' Class bulkheads shall meet the following requirements:

(1) Doors in bulkheads required to be Class A–60, A–30, or A–15 shall be of hollow steel or equivalent metal construction solidly filled with approved structural insulation capable of meeting the requirements for a Class A–15 bulkhead.

(2) Doors in bulkheads required to be Class A–0 shall be of solid or hollow steel or equivalent metal construction capable of meeting the requirements of a Class A–0 bulkhead.

(3) Doors shall have a latch with a minimum throw of ¾ inch which can be operated from either side of the door. Double swing doors, where permitted for the proper utility of the space, may have the latch normally inoperative.

(4) Except as noted in paragraph (b)(8) of this section, doors may be fitted with not more than 100 square inches of glass, which shall be of the wire inserted type.

(5) Vent grilles or louvers shall not be used in doors of this type.

(6) The bottoms of doors may be undercut not to exceed ½ inch above the door sill or top of approved deck covering. Rugs, and carpets, shall not pass through doorways, but linoleum and similar coverings may do so.

(7) Door frames shall be of rigid construction, and shall provide at least a ½ inch door stop at the sides and top, except:

(i) Double doors capable of independent operation and latching may have a clearance between the doors not to exceed ⅛ inch. However, if one door must always be closed first, a doorstop of at least ½ inch shall be provided for the second door.

(ii) Double swing doors, where permitted, may have a maximum clearance of ⅛ inch at the tops and sides.

(8) Doors opening out onto open decks shall either meet the applicable requirements of this paragraph, or they may be of hardwood having a minimum thickness of 1¾ inches. In any case, no restriction as to the area of glass will be made for such doors insofar as this subpart is concerned. Only glass of the wire-inserted type may be fitted in such doors opening onto safety areas from accommodation spaces containing combustible type furniture and service, cargo, and machinery spaces.

(9) Doors in stairway enclosures and Main Vertical Zone bulkheads shall, in addition to meeting the requirements of this paragraph, also meet the following requirements:

(i) Doors, other than those which are normally locked, such as from staterooms, fan rooms, lockers, etc., shall be of the self-closing type capable of closing against a 3½ degree list, and

such doors shall be numbered in accordance with § 78.47–35 of this subchapter.

(ii) All doors, except those that are kept normally closed, shall be of a type which are capable of release from the control station and from a position at the door. The release mechanism shall be so designed that the door will automatically close in the event of disruption to the control system; however, approved power operated watertight doors will be considered acceptable for this purpose. Holdback hooks, or other means of permanently holding the door open, not subject to control station release, will not be permitted. When double swing doors are permitted, they shall have a latch arrangement which is automatically engaged by the operation of the door release system.

(iii) Double doors shall be so arranged that either door may be closed and latched independently.

(iv) For additional requirements for stairway doors, see § 72.05–20(s).

(c) Doors in ''B'' Class bulkheads shall meet the following requirements:

(1) Doors may be of solid or hollow steel or equivalent metal construction or may be of steel or equivalent metal frame with glass panes or may be of approved incombustible materials of such construction as specifically approved by the Commandant.

(2) No restriction as to the area of glass will be made for such doors, but all glass shall be of the wire-inserted type.

(3) The lower half of such doors may contain vent grilles or louvers with a net area not to exceed 2 square feet.

(4) Doors shall have a latch with a minimum throw of ⅜ inch which can be operated from either side of the door. Double swing doors, where permitted for the proper utility of the space, may have the latch normally inoperative.

(5) The bottoms of doors may be undercut not to exceed 1 inch above the door sill or top of approved deck covering. Rugs and carpets shall not pass through doorways but linoleum and similar covering may do so.

(6) Door frames shall be of rigid construction, and shall provide at least a ½ inch doorstop at the sides and top, except:

(i) Double doors capable of independent operation and latching may have a clearance between the doors not to exceed ⅛ inch. However, if one door must always be closed first, a door stop of at least ½ inch shall be provided for the second door.

(ii) Double swing doors, where permitted, may have a maximum clearance of ⅛ inch at the tops and sides.

(d) Doors in bulkheads required to be Class C shall be of approved incombustible materials.

§ 72.05–30 Windows and airports.

(a) For the purpose of this subpart, all glass in windows or airports shall be at least ¼ inch thick. However, greater thickness may be required for strength purposes in certain locations. All glass shall be fitted in steel or equivalent metal frames and shall be retained by steel or equivalent metal glazing beads or angles.

(b) Where wire-inserted glass is required, and the single wire type is employed, the strands shall run horizontally and shall be not more than 2 inches apart.

(c) Windows in Class B–0 bulkheads shall be fitted with wire inserted glass. Such windows opening onto passageways may not extend below the normal height of the storm rails.

(d) Windows in Class B–15 bulkheads shall be fitted with wire inserted glass. In addition, such windows shall be fitted with a suitable steel or equivalent metal shutter capable of being operated manually as well as automatically by means of a fusible link.

(e) Windows in interior ''A'' Class bulkheads shall be fitted with suitable steel or equivalent metal shutter capable of being operated manually as well as automatically from the control station by the same system used for the fire doors as noted in § 72.05–25(b)(9)(ii). The metal shutter shall be insulated to meet the applicable bulkhead requirements.

(f) Windows or air ports opening onto lifeboat embarkation or lowering spaces from service, cargo, or machinery spaces, or from control or accommodation spaces other than those containing only incombustible veneers and trim and fire resistant furnishings, shall be fitted with wire inserted glass.

Other windows or air ports opening onto open decks or enclosed promenades need not have wire inserted glass.

(g) Skylights to spaces containing auxiliary internal combustion machinery having an aggregate horsepower of 1,000 or more, and to boiler and main enginerooms, shall be capable of being closed from outside the space. If glass is fitted in such skylights, it shall be of the wire inserted type. The glass panels shall be fitted with permanently attached shutters of steel or equivalent metal.

§ 72.05–35 Hatch covers and shifting boards.

(a) Wood hatch covers may be used between cargo spaces. Hatch covers in other locations shall meet the requirements for deck construction noted in tables 72.05–10 (f) and (g).

(b) Tonnage openings in ''A'' Class bulkheads shall be closed by means of steel plates.

§ 72.05–40 Insulation, other than for structural fire protection.

(a) Any insulation installed for heat and comfort, refrigeration (including air conditioning), or for any other purpose, and all material incidental to its installation, shall be approved Incombustible Materials. This paragraph shall not apply to such insulation installed in cargo spaces, refrigerated storerooms, individual refrigerator boxes, nor to pipe and machinery coverings or laggings within the machinery spaces.

(b) [Reserved]

§ 72.05–45 Paint.

(a) An excessive number of coats of paint will be discouraged unless noncombustible paint is used.

(b) Nitrocellulose or other highly flammable or noxious fume-producing paints or lacquers shall not be used.

§ 72.05–50 Ventilation.

(a) Where the term *duct* is used in this section, it shall include trunks, plenums, and any other type of ventilation piping, chambers, or duct work.

(b) Where automatic fire dampers are required, they shall be designed to operate at approximately 165 degrees F. for normal locations, and approximately 212 degrees F. for locations such as galleys. The dampers shall be so designed as to close against the anticipated draft in the duct. The damper shall be made accessible for periodic inspection by means of a hinged or bolted plate in the duct. The damper and the portion of duct containing the damper shall be constructed of at least ⅛ inch steel plate suitably stiffened. No insulation need be applied to the damper blade.

(c) Where ventilation ducts are required to meet bulkhead requirements, the space within the duct shall be considered to be the same as the space served by the ventilator, and the duct shall be insulated to meet the applicable requirements of tables 72.05–10(d) and 72.05–10(e).

(d) All ventilation systems shall be designed, where practicable, so that all ducts leading to the various enclosures are kept within the main vertical zones. No duct may serve spaces in more than one main vertical zone.

(e) Where of necessity, ducts pass through main vertical zone bulkheads, automatic fire dampers shall be fitted adjacent to the bulkhead. The duct between the bulkhead and the damper shall meet the applicable bulkhead requirements. The damper shall be fitted on at least one side of the bulkhead with a visible indicator showing whether the damper is in the open or closed position. The indicator may be connected to the manual operating device rather than the damper blade so that it might show as being open when it had automatically closed, but could never be open if the indicator showed it to be closed. The damper shall be capable of being manually closed from both sides of the bulkhead. The operating positions for the damper shall be marked as required by § 78.47–53 of this subchapter.

(f) Vent ducts serving stairway enclosures shall serve no other spaces.

(g) Ventilation ducts serving cargo or main machinery spaces which pass through accommodation spaces or safety areas shall be fitted with an automatic fire damper adjacent to the point of entry. Between the bulkhead or deck and the damper, and in addition, on vertical ducts for a distance of

6 feet above the damper, the duct shall meet the applicable bulkhead requirements.

(h) Exhausts from galleys shall meet the applicable bulkhead requirements. In addition, an automatic damper shall be installed in exhaust ducts over frying vats, etc.

(i) In all ventilation systems, manually operated dampers or other suitable means shall be provided in accessible locations, outside the spaces served by the system, for shutting off the passage of air in the event of fire; however, no dampers shall be placed in exhaust ducts from film lockers or projection rooms.

(j) For information regarding controls of electrically powered ventilation systems, see subchapter J (Electrical Engineering) of this chapter.

§ 72.05–55 Furniture and furnishings.

(a) For the purpose of this subpart, rooms containing ''fire resistant furnishings'' will be considered to be those in which:

(1) All case furniture such as desks, wardrobes, dressing tables, bureaus, dressers, etc., shall be constructed entirely of approved incombustible materials; except that a combustible veneer not exceeding ⅛ inch may be used on the top surface of such articles.

(2) All free standing furniture such as chairs, sofas, tables, etc., shall be constructed with frames of approved incombustible materials.

(3) All draperies shall be of approved fire resistant fabrics.

(4) All rugs and carpets shall be of wool or other material having equivalent fire resistive qualities.

(b) Waste paper baskets shall be constructed of approved incombustible materials with solid sides and bottoms.

(c) Passageways and stairway enclosures shall contain only fire resistant furnishings. In addition, all upholstery and padding of chairs, sofas, etc., in these areas, shall be of approved fire resistant materials.

§ 72.05–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels of 100 gross tons and over, contracted for prior to May 26, 1965, on an international voyage; and vessels of 100 gross tons and over, contracted for on or after May 28, 1936, and prior to May 26, 1965, not on an international voyage; shall meet the following requirements:

(1) Existing structure, arrangements, and materials previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph and are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original construction.

(2) The details shall be in general agreement with §§ 72.05–5 through 72.05–60.

(b) Vessels of 100 gross tons and over, contracted for prior to May 28, 1936, not on an international voyage, shall meet the following requirements:

(1) Existing structure, arrangements, and materials previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph and are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original construction.

(2) All vessels in ocean or coastwise service shall be fitted above the bulkhead deck with fire-resisting bulkheads and doors spaced not more than 131 feet apart which are capable of resisting the passage of flame for a period of at least 1 hour.

(3) All vessels with berth or stateroom accommodations for 50 or more passengers shall be fitted with an approved automatic sprinkling system unless deemed unnecessary by the Commandant. This system shall be so installed as to protect all enclosed parts of the vessel accessible to passengers or crew while the vessel is being navigated, except cargo holds, machinery spaces, and when of fire-resisting construction, toilets, bathrooms, and spaces of similar construction. Where, in the case of a particular vessel, the Commandant does not consider the installation of an automatic water-sprinkling system necessary, such vessel shall be protected in such enclosed parts of the vessel as the Commandant shall deem necessary, with an automatic electric or pneumatic fire-

detecting and alarm system, used singly or in combination, of a type approved by the Commandant.

(c) Vessels of less than 100 gross tons, contracted for prior to May 26, 1965, which carry more than 150 passengers, shall meet the following requirements:

(1) Existing structure, arrangements, and materials previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph and are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original construction.

(2) For such vessels, contracted for on or after November 19, 1952, and prior to May 26, 1965, on an international voyage, the details shall be in general agreement with §§ 72.05–5 through 72.05–60.

[CGFR 67–87, 32 FR 19180, Dec. 20, 1967]

Subpart 72.10—Means of Escape

§ 72.10–1 Application.

(a) The provisions of this subpart, with the exception of § 72.10–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 72.10–90.

(b) [Reserved]

§ 72.10–5 Two means required.

(a) There shall be at least two means of escape from all general areas accessible to the passengers or where the crew may be quartered or normally employed. At least one of these two means of escape shall be independent of watertight doors. For stairway continuity and general requirements for stairways see § 72.05–20.

(b) Elevators shall not be considered as one of the required means of escape.

(c) Stairways serving only a space and a balcony to a space shall not be considered as one of the required means of escape.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGD 72–104R, 37 FR 14233, July 18, 1972]

§ 72.10–10 Location.

(a) The two means of escape shall be as remote as practicable so as to minimize the possibility of one incident blocking both escapes.

(b) [Reserved]

§ 72.10–15 Vertical ladders not acceptable.

(a) Vertical ladders and deck scuttles shall not in general be considered satisfactory as one of the required means of escape. However, where it is demonstrated that the installation of a stairway would be impracticable, a vertical ladder may be used as the second means of escape.

(b) [Reserved]

§ 72.10–20 No means for locking door.

(a) No means shall be provided for locking doors giving access to either of the 2 required means of escape, except that crash doors or locking devices, capable of being easily forced in an emergency, may be employed provided a permanent and conspicuous notice to this effect is attached to both sides of the door. This paragraph shall not apply to outside doors to deckhouses where such doors are locked by key only and such key is under the control of one of the vessel's officers.

(b) [Reserved]

§ 72.10–25 Stairway size.

(a) Stairways shall be of sufficient width to satisfactorily accommodate the number of persons having access to such stairs for escape purposes.

(b) [Reserved]

§ 72.10–30 Dead end corridors.

(a) Dead end corridors, or the equivalent, more than 40 feet in length shall not be permitted.

(b) [Reserved]

§ 72.10–35 Public spaces.

(a) In all cases, public spaces having a deck area of over 300 square feet shall have at least two exits. Where practicable, these exits shall give egress to different corridors, rooms, or spaces to minimize the possibility of one incident blocking both exits.

(b) [Reserved]

§ 72.10–40 Access to lifeboats.

(a) The stairways, corridors, and doors shall be so arranged as to permit a ready and direct access to the various lifeboat embarkation areas.

(b) [Reserved]

§ 72.10–45 Weather deck communications.

(a) Vertical communication shall be provided between the various weather decks by means of permanent inclined ladders. Where ladders are for the exclusive use of the crew for rapid communication, and do not form part of a normal escape route, vertical ladders may be employed.

(b) [Reserved]

§ 72.10–90 Vessels contracted for prior to November 19, 1952.

(a) Existing arrangements previously approved will be considered satisfactory so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original design provided that in no case will a greater departure from the standards of §§ 72.10–5 through 72.10–45 be permitted than presently exists. Nothing in this paragraph shall be construed as exempting any vessel from having 2 suitable means of escape from all main compartments which are accessible to the passengers or where the crew are normally quartered or employed.

(b) [Reserved]

Subpart 72.15—Ventilation

§ 72.15–1 Application.

(a) The provisions of this subpart with the exception of § 72.15–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 72.15–90.

(b) [Reserved]

§ 72.15–5 Structural fire protection.

See § 72.05–50 for ventilation requirements pertaining to structural fire protection.

[CGD 72–104R, 37 FR 14233, July 18, 1972]

§ 72.15–10 Vessels using fuel having a flashpoint of 110 degrees F. or lower.

(a) Where liquid fuel having a flashpoint of 110 degrees F. or lower is used for main or auxiliary machinery or for starting purposes, the spaces containing such machinery or fuel tanks shall have natural supply and mechanical ventilation as required by this section.

(b) The requirements for the mechanical exhaust system shall be such as to assure the air changes as noted in table 72.15–10(b), depending upon the size of the space.

TABLE 72.15–10(b)

Size of space, cubic feet		Minutes per air change
Over	Not over	
.....	500	2
500	1,000	3
1,000	1,500	4
1,500	.....	5

(c) Exhaust blower motors shall be outside of the ducts, and if mounted in any compartment required to be ventilated by this section, shall be of the explosion proof type. Blower blades shall be non-sparking with reference to their housings.

(d) Exhaust blower switches shall be located outside of any space required to be ventilated by this section, and shall be of the type interlocked with the ignition switch so that the blowers are started before the engine ignition is switched on. A red warning sign at the switch shall state that the blowers shall be operated prior to starting the engines for a sufficient time to insure at least one complete change of air in the compartments.

(e) The area of the ducts shall be such as to limit the air velocity to a maximum of 2,000 feet per minute. Ducts may be of any shape, provided that in no case shall 1 dimension exceed twice the other.

(f) At least 2 inlet ducts shall be located at 1 end of the compartment and they shall extend to the lowest part of the compartment or bilge on each side. Similar exhaust ducts shall be led to the mechanical exhaust system from the lowest part of the compartment or bilge on each side of the compartment

at the end opposite from that at which the inlet ducts are fitted.

(g) All ducts shall be constructed of non-ferrous metal or galvanized ferrous metal not less than No. 22 USSG, intact and gastight from end to end and shall be of substantial construction. The ducts shall lead as direct as possible and be properly fastened and supported.

(h) All supply ducts shall be provided with cowls or scoops having a free area not less than twice the required duct area. When the cowls or scoops are screened, the mouth area shall be increased to compensate for the area of the screen wire. Dampers shall not be fitted in the supply ducts. Cowls or scoops shall be kept open at all times except when the stress of weather is such as to endanger the vessel if the openings are not temporarily closed. Supply and exhaust openings shall not be located where the natural flow of air is unduly obstructed, or adjacent to possible sources of vapor ignition, nor shall they be so located that exhaust air may be taken into the supply vents.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 72.15–15 Ventilation for closed spaces.

(a) All enclosed spaces within the vessel shall be properly vented or ventilated. Means shall be provided to close off all vents and ventilators.

(b) Means shall be provided for stopping all fans in ventilation systems serving machinery and cargo spaces and for closing all doorways, ventilators and annular spaces around funnels and other openings to such spaces, from outside these spaces, in case of fire.

(c) The ventilation of spaces which are ''specially suitable for vehicles'' shall be in accordance with the provisions of this paragraph. In addition, if vehicles are operated inside of enclosed spaces, the ventilation shall be in accordance with subpart 78.83 of this subchapter.

(1) Areas below the weather deck shall be provided with continuous pressure-positive ventilation at each level on which vehicles are transported.

(2) The quantity of ventilating air shall be not less than 1 cubic foot per minute per square foot of deck area.

(3) The ventilation shall be such as to prevent air stratification as well as to prevent accumulation of air pockets.

(4) An alarm system shall be provided which will indicate the loss of required ventilation. The alarm location shall be in a normally manned space acceptable to the Commandant.

[CGFR 66–50, 30 FR 16903, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15281, Dec. 6, 1966]

§ 72.15–20 Ventilation for crew quarters and passenger spaces.

(a) All crew and passenger spaces shall be adequately ventilated in a manner suitable to the purpose of the space.

(b) On vessels of 100 gross tons and over, except for such spaces as are so located that under all ordinary conditions of weather, windows, ports, skylights, etc., and doors to passageways can be kept open, all crew spaces shall be ventilated by a mechanical system, unless it can be shown that a natural system will provide adequate ventilation. However, vessels which trade regularly in the tropics shall, in general, be fitted with a mechanical ventilation system.

§ 72.15–90 Vessels contracted for prior to November 19, 1952.

(a) Existing arrangements previously approved will be considered satisfactory so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original design provided that in no case will a greater departure from the standards of §§ 72.15–5 through 72.15–20 be permitted than presently exists.

(b) [Reserved]

Subpart 72.20—Accommodations for Officers and Crew

SOURCE: CGD 95–027, 61 FR 26002, May 23, 1996, unless otherwise noted.

§ 72.20–1 Application.

The provisions of this part, except § 72.20–90, apply to all vessels contracted for after November 18, 1952. Vessels contracted for before November 19, 1952, must meet the requirements of § 72.20–90.

§ 72.20–5 Intent.

Accommodations provided for officers and crew on all vessels shall be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, arranged, and insulated from undue noise, heat, and odors.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 72.20–10 Location of crew spaces.

(a) Crew quarters must not be located farther forward in the vessel than a vertical plane located at 5 percent of the vessel's length abaft the forward side of the stem at the designed summer load water line. However, for vessels in other than ocean or coastwise service, this distance need not exceed 8.5 meters (28 feet). For the purpose of this paragraph, the vessel's length must be as defined in § 43.15–1 of subchapter E (Load Lines) of this chapter. Unless approved by the Commandant, no section of the deck head of the crew spaces may be below the deepest load line.

(b) There must be no direct communication, except through solid, close fitted doors or hatches between crew spaces and chain lockers, or machinery spaces.

§ 72.20–15 Construction.

All crew spaces are to be constructed and arranged in a manner suitable to the purpose for which they are intended and so that they can be kept in a clean, workable, and sanitary condition.

§ 72.20–20 Sleeping accommodations.

(a) Where practicable, each licensed officer shall be provided with a separate stateroom.

(b) Sleeping accommodations for the crew must be divided into rooms, no one of which shall berth more than 4 persons.

(c) Each room shall be of such size that there is at least 2.78 square meters (30 square feet) of deck area and a volume of at least 5.8 cubic meters (210 cubic feet) for each person accommodated. The clear head room shall be not less than 190 centimeters (75 inches). In measuring sleeping accommodations any furnishings contained therein for the use of the occupants are not to be deducted from the total volume or from the deck area.

(d) Each person shall have a separate berth and not more than one berth may be placed above another. The berth must be composed of materials not likely to corrode. The overall size of a berth must not be less than 68 centimeters (27 inches) wide by 190 centimeters (75 inches) long, except by special permission of the Commandant. Where two tiers of berths are fitted, the bottom of the lower berth must not be less than 30 centimeters (12 inches) above the deck. The berths must not be obstructed by pipes, ventilating ducts, or other installations.

(e) A locker must be provided for each person accommodated in a room.

§ 72.20–25 Washrooms and toilet rooms.

(a) There must be at least 1 toilet, 1 washbasin, and 1 shower or bathtub for each 8 members or portion thereof in the crew who do not occupy sleeping accommodations to which private or semi-private facilities are attached.

(b) The toilet rooms and washrooms shall be located convenient to the sleeping quarters of the crew to which they are allotted but must not open directly into such quarters except when they are provided as private or semi-private facilities.

(c) All washbasins, showers, and bathtubs must be equipped with adequate plumbing, including hot and cold running water. All toilets must be installed with adequate plumbing for flushing.

(d) At least 1 washbasin must be fitted in each toilet room, except where private or semi-private facilities are provided and washbasins are installed in the sleeping rooms.

(e) Where more than 1 toilet is located in a space or compartment, each toilet must be separated by partitions.

§ 72.20–30 Messrooms.

(a) Messrooms must be located as near to the galley as practicable except where the messroom is equipped with a steam table.

(b) Each messroom must seat the number of persons expected to eat in the messroom at one time.

§ 72.20–35 Hospital space.

(a) Each vessel which in the ordinary course of its trade makes voyages of more than 3 days duration between ports and which carries a crew of 12 or more, must be provided with a hospital space. This space must be situated with due regard to the comfort of the sick so that they may receive proper attention in all weathers.

(b) The hospital must be suitably separated from other spaces and must be used for the care of the sick and for no other purpose.

(c) The hospital must be fitted with berths in the ratio of 1 berth to every 12 members of the crew, or portion thereof, who are not berthed in single occupancy rooms, but the number of berths need not exceed 6.

(d) The hospital must have a toilet, washbasin, and bathtub or shower conveniently situated. Other necessary suitable equipment such as a clothes locker, a table, and a seat must be provided.

§ 72.20–40 Other spaces.

Each vessel must have—

(a) Sufficient facilities where the crew may wash and dry their own clothes, including at least 1 sink supplied with hot and cold fresh water;

(b) Recreation spaces; and

(c) A space or spaces of adequate size on an open deck to which the crew has access when off duty.

§ 72.20–45 Lighting.

Each berth must have a light.

§ 72.20–50 Heating and cooling.

(a) All manned spaces must be adequately heated and cooled in a manner suitable to the purpose of the space.

(b) The heating and cooling system for accommodations must be capable of maintaining a temperature of 21 °C (70 °F) under normal operating conditions without curtailing ventilation.

(c) Radiators and other heating apparatus must be so placed and shielded, where necessary, to avoid risk of fire, danger or discomfort to the occupants. Pipes leading to radiators or heating apparatus must be insulated where those pipes create a hazard to persons occupying the space.

§ 72.20–55 Insect screens.

Provisions must be made to protect the crew quarters against the admission of insects.

§ 72.20–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels of 100 gross tons and over, contracted for prior to March 4, 1915, must meet the requirements of this paragraph.

(1) Existing structure, arrangements, materials, and facilities, previously approved will be considered satisfactory so long as they are maintained in a suitable condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) Minor repairs and alterations may be made to the same standard as the original construction provided that in no case will a greater departure from the standards of §§ 72.20–5 through 72.20–55 be permitted than presently exists.

(b) Vessels of 100 gross tons and over, contracted for on or after March 4, 1915, but prior to January 1, 1941, must meet the following requirements:

(1) Existing structure, arrangements, materials, and facilities, previously accepted or approved will be considered satisfactory so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standard as the original construction.

(2) Where reasonable and practicable, a minimum of 1 toilet, shower, and washbasin must be provided for each 10 members of the crew or fraction thereof.

(3) Crew spaces must have a volume of at least 3.4 cubic meters (120 cubic feet) and a deck area of at least 1.5 square meters (16 square feet) for each person accommodated.

(4) Each crewmember shall have a separate berth, and berths may not be placed more than 2 high.

(5) Each vessel, which in the ordinary course of its trade makes a voyage of more than 3 days duration between ports and which carries a crew of 12 or more persons, must be provided with a suitable hospital space for the exclusive use of the sick or injured. Berths must be provided in the ratio of 1 berth for each 12 members of the crew or fraction thereof, but the number of berths need not exceed 6.

(6) The crew spaces must be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, and arranged, and, practicable, must be insulated from undue noise and odors.

(c) Vessels of 100 gross tons and over, contracted for on or after January 1, 1941, but prior to November 19, 1952, must meet the requirements of this paragraph.

(1) Existing structure, arrangements, materials, and facilities, previously accepted or approved will be considered satisfactory so long as they are maintained in a good condition to the satisfaction of the Office in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standard as the original construction.

(2) There must be a minimum of 1 toilet, 1 shower, and 1 washbasin for each 8 members of the crew or fraction thereof who are not accommodated in rooms having attached private or semiprivate facilities. Washbasins, showers, and bathtubs, if substituted for showers, must be equipped with adequate plumbing, including hot and cold running water.

(3) Crew spaces must have a volume of at least 3.4 cubic meters (120 cubic feet) and a deck of at least 1.5 square meters (16 square feet) for each person accommodated.

(4) Each crewmember shall have a separate berth, and berths may not be placed more than two high.

(5) Each vessel, which in the ordinary course of its trade makes a voyage of more than 3 days duration between ports and which carries a crew of 12 or more persons, must be provided with a suitable hospital space for the exclusive use of the sick or injured. Berths must be provided in the ratio of 1 berth for each 12 members of the crew or fraction thereof, but the member of berths need not exceed 6.

(6) The crew spaces must be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, and arranged, and, where practicable, must be insulated from undue noise heat, and odors.

[CGD 95–027, 61 FR 26002, May 23, 1996; 61 FR 35138, July 5, 1996]

Subpart 72.25—Passenger Accommodations

§ 72.25–1 Application.

(a) The provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 72.25–10 Location of passenger quarters.

(a) The deck forming the deckhead of passenger quarters between adjacent watertight bulkheads shall not be below the deepest load line at any point within the watertight compartment in question.

(b) [Reserved]

§ 72.25–15 Passenger accommodations for excursion boats, ferryboats, and passenger barges.

(a) Except as specifically excluded by this section, separate public toilet spaces shall be provided for male and female passengers with at least the minimum equipment in each based upon the number of passengers permitted to be carried as set forth in table 72.25–15(a).

TABLE 72.25–15(a)

Number of passengers		Toilets	Wash-basins
Over	Not over		
.....	100	1	1
100	300	2	1
300	500	3	2
500	1,000	4	2
1,000	1,500	5	3
1,500	2,000	6	3
2,000	2,500	7	4
2,500	3,000	8	4
3,000	3,500	9	5
3,500	4,000	10	5
4,000	.....	[1]	[1]

[1] Additional facilities by extrapolation.

(b) In the men's spaces, urinals may be substituted for toilets, provided at

least one-half the required toilets are fitted.

(c) On ferryboats and barges having a short run, passenger toilet facilities need not be fitted.

Subpart 72.30—Subdivision and Stability

§ 72.30–1 Application.

Each vessel must meet the applicable requirements in subchapter S of this chapter.

[CGD 79–023, 48 FR 51007, Nov. 4, 1983]

Subpart 72.40—Rails and Guards

§ 72.40–1 Application.

(a) The provisions of this subpart, with the exception of § 72.40–90, shall apply to all vessels contracted for on or after July 1, 1969. Vessels contracted for prior to July 1, 1969, shall meet the requirements of § 72.40–90.

(b) [Reserved]

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGFR 69–72, 34 FR 17483, Oct. 29, 1969]

§ 72.40–5 Where rails required.

(a) All passenger vessels shall have efficient guard rails or bulwarks on decks and bridges as follows: The height of rails or bulwarks shall be at least 39½ inches from the deck. At the peripheries of the freeboard and superstructure decks and at the peripheries of all decks accessible to passengers, rails shall be in at least three courses including the top. The opening below the lowest course shall not be more than 9 inches. The courses shall not be more than 15 inches apart. In the case of ships with rounded gunwales the guard rail supports shall be placed on the flat of the deck. On other decks and bridges the rails shall be in at least two courses, including the top, approximately evenly spaced.

(b) Where the height of the rails interferes with the business of the vessel, as in the case of a sport fishing vessel, other arrangements may be specifically approved by the Commandant. However, in general, the effective rail or bulwark height above the deck on which the passengers stand shall be at least 30 inches.

(c) On the passenger decks of ferryboats, excursion vessels, and vessels of a similar type, the space below the top of the rail shall be fitted with suitable wire mesh or the equivalent. Depending upon the type of construction, the lower rail courses may not be required.

(d) Where it can be shown to the satisfaction of the Commandant that a vessel is engaged exclusively in voyages of a sheltered nature, the provisions of paragraph (a) of this section may be relaxed.

[CGFR 69–72, 34 FR 17483, Oct. 29, 1969]

§ 72.40–10 Storm rails.

(a) Suitable storm rails shall be installed in all passageways and at the deckhouse sides where passengers or crew might have normal access. Storm rails shall be installed on both sides of passageways which are 6 feet or more in width.

(b) [Reserved]

§ 72.40–15 Vehicular ferries.

(a) On vehicular ferries, suitable chains, cables, or other barriers shall be installed at the ends of the vehicle runways. In addition, suitable gates, rails, or other devices shall be installed as a continuation of the regularly required rails.

(b) [Reserved]

§ 72.40–20 Guards in dangerous places.

(a) Suitable covers, guards, or rails shall be installed in way of all exposed and dangerous places such as gears, machinery, etc.

(b) [Reserved]

§ 72.40–90 Vessels contracted for prior to July 1, 1969.

(a) Passenger vessels contracted for prior to July 1, 1969, assigned a deeper load line under part 42 of subchapter E (Load Lines) of this chapter shall have efficient guard rails or bulwarks as required by § 72.40–5. Otherwise, existing structure, arrangements, materials, and facilities previously approved will be considered satisfactory so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to

the same standards as the original construction provided that in no case will greater departure from the standards of §§72.40–5 through 72.40–20 be permitted than presently exists.

(b) [Reserved]

[CGFR 69–72, 34 FR 17483, Oct. 29, 1969]

PART 76—FIRE PROTECTION EQUIPMENT

Subpart 76.01—Application

Sec.

Subpart 76.05—Fire Detecting and Extinguishing Equipment, Where Required

Subpart 76.10—Fire Main System, Details

Subpart 76.13—Steam Smothering Systems

Subpart 76.15—Carbon Dioxide Extinguishing Systems, Details

Subpart 76.17—Foam Extinguishing Systems, Details

Subpart 76.23—Manual Sprinkling System, Details

Subpart 76.25—Automatic Sprinkling System, Details

Subpart 76.27—Electric Fire Detecting System, Details

Subpart 76.30—Pneumatic Fire Detecting System, Details

Subpart 76.33—Smoke Detecting System, Details